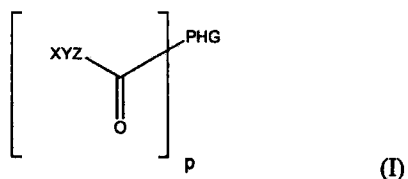


**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-60. (Canceled)

61. (Previously Presented) A lipid compound of formula (I):



wherein

PHG is a polar head group chosen from a phospholipid, a lysophospholipid, a monoacylglycerol, a diacylglycerol, and a triacylglycerol;

p is from 1 to 3;

X is independently chosen from a C<sub>6</sub>-C<sub>24</sub> alkenyl containing one or more double bonds and optionally one or more triple bonds, a C<sub>6</sub>-C<sub>24</sub> alkynyl containing one or more triple bonds, and a C<sub>6</sub>-C<sub>24</sub> alkyl, all optionally substituted with at least one of F, hydroxy, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> alkylthio, C<sub>2</sub>-C<sub>5</sub> acyloxy, and C<sub>1</sub>-C<sub>4</sub> alkyl;

Y is chosen from S, Se, SO<sub>2</sub>, and SO; and

Z is a C<sub>1</sub>-C<sub>10</sub> alkyl group,

wherein each X, Y, and Z is chosen independently of each other when p is 2 or 3,

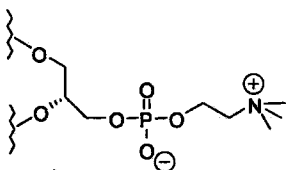
and

wherein Z is a C<sub>1</sub>-C<sub>6</sub> alkyl group when Y is S and PHG is a phosphatidylethanolamine phospholipid or phosphatidylethanolamine lysophospholipid.

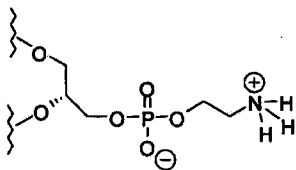
62. (Previously Presented) The lipid compound according to claim 61, wherein the polar head group is chosen from a phospholipid chosen from the group consisting of phosphatidylserine (PS), phosphatidylcholine (PC), phosphatidylethanolamine (PE), phosphatidylinositol (PI), phosphatidylglycerol (PG), and phosphatidic acid (PA).

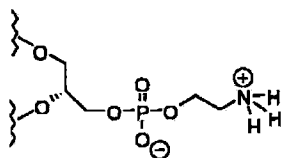
63. (Previously Presented) The lipid compound according to claim 62, wherein p is 1 or 2.

64. (Previously Presented) The lipid compound according to claim 62, wherein p = 2 and the polar head group is chosen from the group consisting of formula (II) to (VI):

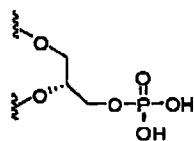


(II)

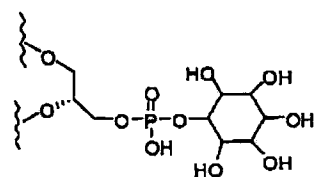




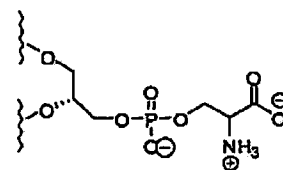
(III)



(IV)

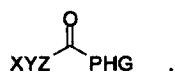


(V) and

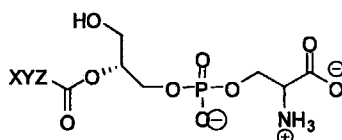
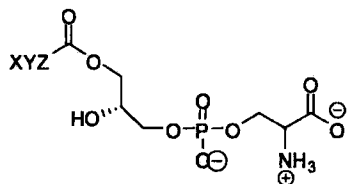
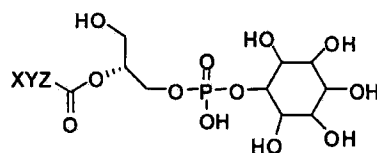
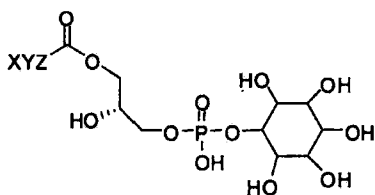
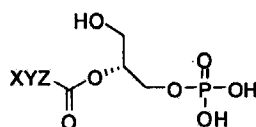
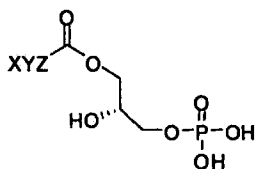
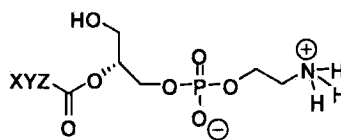
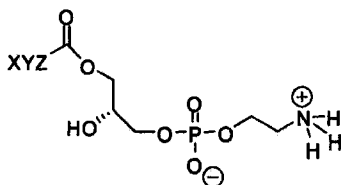
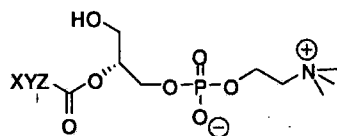
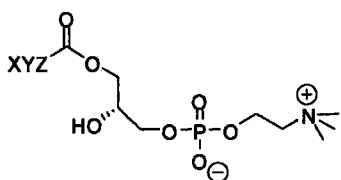


(VI).

65. (Previously Presented) The lipid compound according to claim 62, wherein  $p = 1$ , and is represented by the following formula

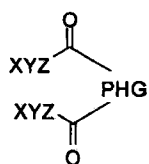


66. (Previously Presented) The lipid compound according to claim 65, wherein the compound is chosen from the group consisting of:



and

67. (Previously Presented) The lipid compound according to claim 63,  
represented by the following formula:



Claims 68-70. (Canceled)

71. (Previously Presented) The lipid compound according to claim 62, wherein X is independently chosen from a C<sub>6</sub>-C<sub>24</sub> alkynyl containing one or more triple bonds, wherein at least one triple bond is distanced from the terminal end of the acetylenic hydrocarbyl group by 2, 3, or 7 carbons.

72. (Previously Presented) The lipid compound according to claim 71, wherein one triple bond is distanced from the terminal end of the acetylenic hydrocarbyl group by 2 carbons.

73. (Previously Presented) The lipid compound according to claim 62, wherein X is independently chosen from a C<sub>10</sub>-C<sub>18</sub> alkynyl containing one or more triple bonds, wherein at least one triple bond is distanced from the terminal end of the acetylenic hydrocarbyl group by 2 carbons.

74. (Previously Presented) The lipid compound according to claim 62, wherein X is independently chosen from a C<sub>6</sub>-C<sub>24</sub> alkenyl containing one or more double bonds.

75. (Previously Presented) The lipid compound according to claim 62, wherein X is independently chosen from an unsubstituted C<sub>10</sub>-C<sub>18</sub> alkenyl.

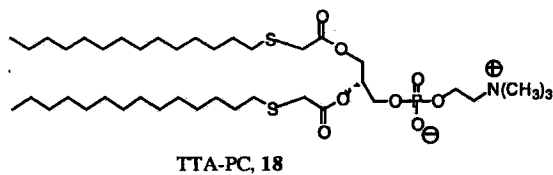
76. (Previously Presented) The lipid compound according to claim 74, wherein at least one double bond is in a *cis* configuration.

77. (Previously Presented) The lipid compound according to claim 74, wherein at least one double bond is in the Δ<sup>9</sup> position.

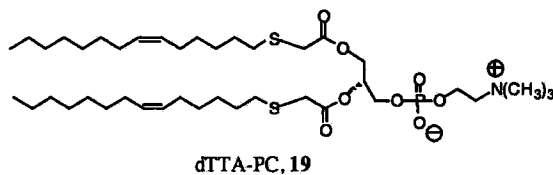
78. (Previously Presented) The lipid compound according to claim 62, wherein X is independently chosen from a C<sub>6</sub>-C<sub>24</sub> alkyl.

79. (Previously Presented) The lipid compound according to claim 78, wherein X is independently chosen from a C<sub>10</sub>-C<sub>18</sub> alkyl.
80. (Previously Presented) The lipid compound according to claim 62, wherein Y is Se or S.
81. (Previously Presented) The lipid compound according to claim 80, wherein Y is S.
82. (Previously Presented) The lipid compound according to claim 62, wherein Z is -(CH<sub>2</sub>)<sub>n</sub>- and n is 1 or 3.
83. (Previously Presented) The lipid compound according to claim 62, wherein the compound is chosen from the group consisting of lipid compounds 18-23:

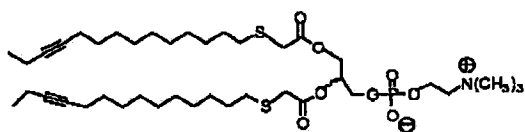
(18)



(19)

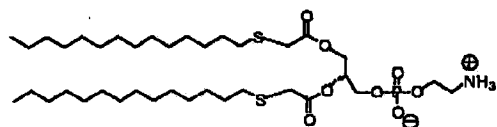


(20)



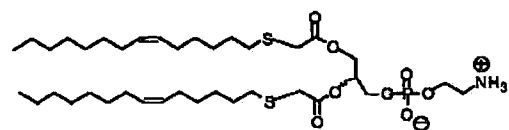
tTTA-PC, 20

(21)



TTA-PE, 21

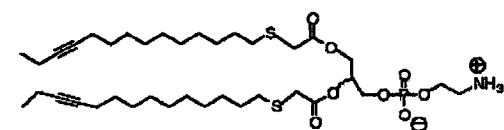
(22)



dTTA-PE, 22

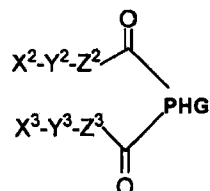
and

(23)



tTTA-PE, 23

84. (Previously Presented) The lipid compound according to claim 62,  
represented by the following formula:

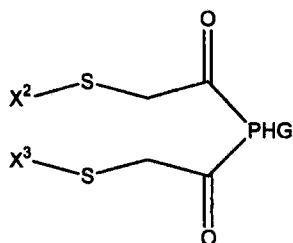


wherein  $X^2$  and  $X^3$  are independently chosen from the group consisting of a substituted or unsubstituted,  $C_{10}$ - $C_{18}$  alkyl,  $C_{10}$ - $C_{18}$  alkenyl, and  $C_{10}$ - $C_{18}$  alkynyl;

$Y^2$  and  $Y^3$  are independently chosen from S and Se;

$Z^2$  and  $Z^3$  are independently chosen from a  $C_1$ - $C_6$  alkyl group.

85. (Previously Presented) The lipid compound according to claim 62, wherein the compound is of formula

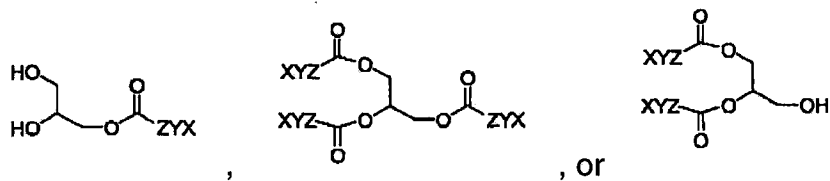


wherein  $X^2$  and  $X^3$  are independently chosen from the group consisting of an unsubstituted  $C_{10}$ - $C_{18}$  alkyl, an unsubstituted  $C_{10}$ - $C_{18}$  alkenyl, and an unsubstituted  $C_{10}$ - $C_{18}$  alkynyl.

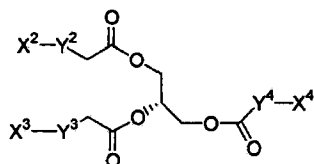
86. (Previously Presented) The lipid compound according to claim 62, wherein the polar head group is chosen from a phosphatidylcholine (PC) and a phosphatidylethanolamine (PE).

87. (Previously Presented) The lipid compound according to claim 61, wherein the polar head group (PHG) is chosen from a monoacylglycerol, a diacylglycerol, and a triacylglycerol.

88. (Previously Presented) The lipid compound according to claim 87, represented by one of the following formulas:



89. (Previously Presented) The lipid compound according to claim 86,  
wherein the compound is of the formula

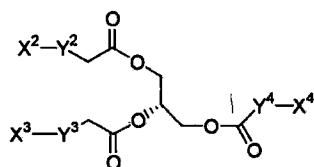


wherein

$Y^2$ ,  $Y^3$ , and  $Y^4$  are independently chosen from S and Se; and

$X^2$ ,  $X^3$ , and  $X^4$  are independently chosen from a substituted or unsubstituted  $C_6$ - $C_{24}$  alkyl,  $C_6$ - $C_{24}$  alkenyl, and  $C_6$ - $C_{24}$  alkynyl.

90. (Previously Presented) The lipid compound according to claim 87,  
wherein the compound is of the formula

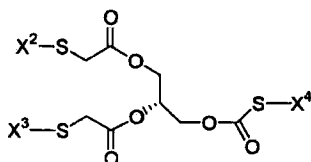


wherein

$Y^2$ ,  $Y^3$ , and  $Y^4$  are independently chosen from S and Se; and

$X^2$ ,  $X^3$ , and  $X^4$  are independently chosen from a substituted or unsubstituted  $C_{10}$ - $C_{18}$  alkyl,  $C_{10}$ - $C_{18}$  alkenyl, and  $C_{10}$ - $C_{18}$  alkynyl.

91. (Previously Presented) The lipid compound according to claim 87,  
wherein the compound is of the formula:



wherein

X<sup>2</sup>, X<sup>3</sup>, and X<sup>4</sup> are independently chosen from a C<sub>10</sub>-C<sub>18</sub> alkyl, a C<sub>10</sub>-C<sub>18</sub> alkenyl, and a C<sub>10</sub>-C<sub>18</sub> alkynyl.

92. (Currently Amended) The lipid compound according to claim 89, wherein X<sup>2</sup>, X<sup>3</sup>, and X<sup>4</sup> are independently chosen from a C<sub>6</sub>-C<sub>24</sub> alkynyl containing one or more triple bonds, wherein at least one triple bond is distanced from the terminal end of the acetylenic hydrocarbyl group by 2, 3, or 7 carbons.

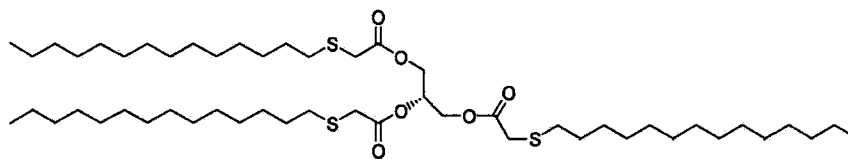
93. (Currently Amended) The lipid compound according to claim 91, wherein X<sup>2</sup>, X<sup>3</sup>, and X<sup>4</sup> are independently chosen from C<sub>10</sub>-C<sub>18</sub> alkynyl containing one or more triple bonds, wherein at least one triple bond is distanced from the terminal end of the acetylenic hydrocarbyl group by 2 carbons.

94. (Currently Amended) The lipid compound according to claim 89, wherein X<sup>2</sup>, X<sup>3</sup>, and X<sup>4</sup> are independently chosen from C<sub>6</sub>-C<sub>24</sub> alkenyl containing one or more double bonds.

95. (Currently Amended) The lipid compound according to claim 91, wherein X<sup>2</sup>, X<sup>3</sup>, and X<sup>4</sup> are independently chosen from an unsubstituted C<sub>10</sub>-C<sub>18</sub> alkenyl, wherein at least one double bond is placed in position 3 counted from the omega end.

96. (Currently Amended) The lipid compound according to claim 95, wherein at least one double bond is in a *cis* configuration.

97. (Previously Presented) The lipid compound according to claim 87, wherein the compound is represented by compound 24:



24

98. (Previously Presented) A combination comprising a liposome and a compound according to claim 61.
99. (Previously Presented) A method for the production of a lipid compound according to claim 61.
100. (Previously Presented) A cosmetic formulation comprising a lipid compound according to claim 61.
101. (Previously Presented) A pharmaceutical composition comprising a compound according to claim 61.
102. (Previously Presented) A method of treating a condition chosen from syndrome X, obesity or an overweight condition, hypertension, fatty liver, diabetes, hyperglycaemia, hyperinsulinemia, insulin resistance, hyperlipidemia, hypercholesterolemia, hypertriglyceridemia (HTG), and stenosis, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.
103. (Previously Presented) The method according to claim 102, for producing weight loss or a reduction of fat mass in a human or non-human animal in need thereof, comprising administering thereto an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

104. (Previously Presented) A method for the treatment of inflammatory disorders, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

105. (Previously Presented) A method of lowering concentration of cholesterol and triglycerides in the blood of mammals and/or inhibiting the oxidative modification of low density lipoprotein, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

106. (Previously Presented) A method for producing weight loss or a reduction of the fat mass in a human or non-human animal in need thereof, comprising administering thereto an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

107. (Previously Presented) A method for the modification of the fat distribution and content of animals, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

108. (Previously Presented) A method of inhibiting the growth of tumours, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

109. (Previously Presented) A method for the treatment or inhibition of primary and secondary metastatic neoplasms, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

110. (Previously Presented) A method for the treatment of proliferative skin disorders, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

111. (Previously Presented) A method for the inhibition of proliferation or induction of differentiation of keratinocytes, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

112. (Previously Presented) A method for the treatment of inflammatory disorders, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

113. (Previously Presented) A method for enhancing the endogenous production of interleukin-10 (IL-10) in mammalian cells or tissues, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

114. (Previously Presented) A method for suppression of the endogenous production of interleukin-2 (IL-2) in mammalian cells or tissues, comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

115. (Previously Presented) A method for the inhibition of proliferation of stimulated peripheral mononuclear cells (PBMC), comprising administering to a subject in need thereof an effective amount of a compound according to claim 61 or a pharmaceutically acceptable salt thereof.

116. (Previously Presented) The pharmaceutical composition according to claim 101, admixed with at least one of a pharmaceutically acceptable carrier, diluent, excipient, or adjuvant.

117. (Previously Presented) A topically administrable pharmaceutical composition according to claim 116.

118. (Previously Presented) A parenterally administrable pharmaceutical composition according to claim 116.

119. (Previously Presented) An intravenously administrable pharmaceutical composition according to claim 116.